Crystal Falls Forest Management Unit
Compartment Review Presentation
Compartment #28 Entry Year: 2013
Compartment Acreage: 3349 County: Dickinson

Revision Date: 6-23-11

Stand Examiner: Debbie Goupell

Legal Description: T44N R27W Sec 19-21, 23-30, 32-34

Management Goals: This compartment has a near equal amount of upland and lowland. About 37% of the compartment is aspen, which does make up the greatest cover type in this compartment. Management of all stands is to balance age class and allow best suited species to continue to grow on best suited sites. Hardwood management goals are to put growth on the best trees in place by removing crown competition. We will protect all bodies of water, especially the North Branch of the Ford River.

Soil and Topography: The majority of the upland is dominated by Emmet fine sandy loam, a well drained soil found on level to rolling hills, or Rousseau fine sand, also a well drained soil. Lowland soils are Carbondale and Cathro mucks which are very poorly drained soils, found on low flats and depressions.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The compartment is more or less broken into thirds by private ownership; a few private parcels are scattered within, and State land adjoins on most sides except the east. The area is heavily used by loggers, hunters, fisherpeople, campers, trappers, general recreationists.

Unique, Natural Features: Stafford Creek, Bear Creek, North Branch of the Ford River and the Ford River all serve as compartment boundary to some extent.

Archeological, Historical, and Cultural Features: None known

Special Management Designations or Considerations: Much of this compartment appears to be in Deer yard/wintering areas.

Watershed and Fisheries Considerations: Protect water quality for all bodies of water, particularly Stafford Creek, Bear Creek, North Branch of the Ford River and the Ford River. Promote long lived conifer species along these waterbodies and use adequate buffer protection.

Wildlife Habitat Considerations: This compartment is part of the Ford River Deeryard. Maintenance and enhancement of both the existing lowland conifer stands and the upland conifer component is critical to support healthy deer numbers, in the area. All species of wildlife need to be considered and a full range of habitat conditions should be provided. Conditions from early-successional to old growth must be provided to meet these needs. Riparian and transition zones were set aside in prior years of entry to provide some of these habitat requirements. Openings will be maintained as logistics permit.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of medium-textured glacial till. The glacial drift thickness varies between 10 and 50 feet. The Cambrian Trempealeau Formation and Munising Group subcrop below the glacial drift. There is not an economic use

for these rocks, although the Trempealeau could be used for stone. Randville Dolomite quarries are located six miles to the southwest. Groveland Iron mine is located approximately twelve miles to the southwest. Most of this compartment was previously leased for metallic exploration and potential may still exist. Gravel pits are located to the east and south of the compartment. There appears to be gravel potential in the compartment. There is no economic oil and gas production in the UP.

Vehicle Access: County Road 426 is the primary access; the Schultz Road and a few other woods roads are on State land for access. Portions of the State land in this compartment will need to be accessed via private property.

Survey Needs: Needed in Section 20, 21, 24-26

Recreational Facilities and Opportunities: Hunting, camping, fishing, trapping, hiking, canoeing.

Fire Protection: Felch protection area. Access to most upland stands is poor to fair, access to some swamp types would be difficult.

Additional Compartment Information:

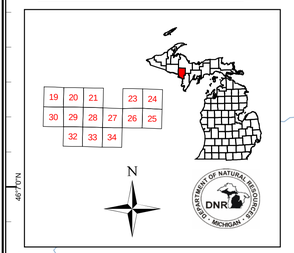
- **The following 5 reports from the Operations Inventory System (OIPC) are attached:**
  - **Cover Type by Age Class**
  - **Cover Type by Management Objective**
  - **Compartment Volume Summary**
  - **Proposed Treatments – No Limiting Factors**
  - **Proposed Treatments – With Limiting Factors**

- **The following information is displayed, where pertinent, on the attached compartment maps:**
  - **Base feature information, stand numbers, cover types**
  - **Proposed treatments**
  - **Proposed road access system**
  - **Suggested potential old growth**

Cover Type & Treatment Map

Compartment 028
TN, RW, Sec.
County: Dickinson
Unit: Crystal Falls
YOE: 2013
Acres: 3,349 GIS Calculated
Stand Examiner: Deb Goupell
Map Revised: 7/28/2011
Map Phase: Pre-Review

Stand # 23 — Stocking Density
(412)0 - A7
Level 3 / Level 4 / OI Code
Cover Type Code



Legend
- Miris Corners
- Remonumented Section Corners
- Gates
- Berms
- Railroads
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers

Treatments
- Clearcut (w/Reserves, Patch/Strip)
- Thinning (Crown, Low, Systematic)
- Selection (Group, Single Tree)

Forest Stands
Level 3
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 431 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest

Non-Forest Stands
Level 3
- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 622 - Lowland Shrub
- 710 - Sand, Soil

1 0.5 0 1 Miles

87°45'0"W 87°44'0"W 87°43'0"W 87°42'0"W 87°41'0"W 87°40'0"W 87°39'0"W 87°38'0"W 87°37'0"W 87°36'0"W
46°10'0"N 46°9'0"N 46°8'0"N 46°7'0"N


Stand Boundary Map
Compartment 028
TN, RW, Sec.
County: Dickinson
Unit: Crystal Falls
YOE: 2013
Acres: 3,349 GIS Calculated
Stand Examiner: Deb Goupell
Map Revised: 7/28/2011
Map Phase: Pre-Review
Stand #
23
Stocking Density
(412)0) - A7
Level 3
Level 4
OI Code
Cover Type Code
N
DNR
Legend
Miris Corners
Gates
Berms
Railroads
Highway
County Paved Roads
Paved Roads
County Gravel Roads
Gravel Roads
Poor Dirt Roads
County Poor Dirt Roads
Trail (Non-Recreation)
Closed Roads
Intermittent Stream/Drain
Stream
Stand Boundaries
Forest Stands
Level 3
411 - Northern Hardwood
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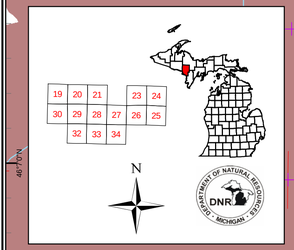
Non-Forest Stands
Level 3
310 - Herbaceous Openland
330 - Low-Density Trees
622 - Lowland Shrub
710 - Sand, Soil
19
20
21
23
24
30
29
28
27
26
25
32
33
34
1
0.5
0
1 Miles

Dedicated & Proposed Special Conservation Area Map

Compartment 028
TN, RW, Sec.
County: Dickinson
Unit: Crystal Falls
YOE: 2013
Acres: 3,349 GIS Calculated
Stand Examiner: Deb Goupell
Map Revised: 7/28/2011
Map Phase: Pre-Review

Stand # 23 — Stocking Density
(412)0) - A7
Level 3 Level 4 — OI Code
Cover Type Code



Legend
- Miris Corners
- Remonumented Section Corners
- Stand Boundaries

Dedicated Special Conservation Areas
- Cold Water Streams
- Deer Wintering Areas

Forest Stands

Level 3
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 431 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest

Non-Forest Stands

Level 3
- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 622 - Lowland Shrub
- 710 - Sand, Soil

1 0.5 0 1 Miles

87°45'0"W 87°44'0"W 87°43'0"W 87°42'0"W 87°41'0"W 87°40'0"W 87°39'0"W 87°38'0"W 87°37'0"W 87°36'0"W
46°0'0"N 46°1'0"N 46°2'0"N 46°3'0"N

Table 1 – Total Acres by Cover Type and Age Class

Crystal Falls Mgt. Unit **Compartment 028 Year of Entry 2013**

Deborah Goupell : Examiner

Age Class

	Non-Forested	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120 +	Uneven Age	Total
Aspen	0	183	186	438	86	125	188	47	0	0	0	0	0	0	0	**1254**
Bog	295	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**295**
Cedar	0	0	0	0	0	0	0	0	0	198	233	333	0	0	0	**763**
Herbaceous Openland	77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**77**
Low-Density Trees	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**
Lowland Conifers	0	0	0	0	0	0	6	0	0	81	19	0	0	0	0	**106**
Lowland Shrub	244	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**244**
Lowland Spruce/Fir	0	0	0	0	0	0	0	33	17	3	0	0	0	0	0	**53**
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	15	12	0	0	0	0	0	**27**
Northern Hardwood	0	0	0	0	0	0	0	0	0	280	10	0	0	0	0	**289**
Sand, Soil	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**
Tamarack	0	0	0	0	0	0	0	0	23	14	0	0	0	0	0	**37**
Upland Conifers	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	**18**
Upland Mixed Forest	0	4	0	0	49	0	70	0	0	0	0	0	0	0	0	**123**
Upland Spruce/Fir	0	0	0	0	0	0	28	17	10	0	0	0	0	0	0	**55**
Total	**623**	**188**	**186**	**438**	**134**	**125**	**292**	**98**	**65**	**606**	**261**	**333**	**0**	**0**	**0**	**3349**

Table 2 – Proposed Treatment Summaries

Crystal Falls Mgt. Unit
Year of Entry 2013

Compartment 028
Total Compartment Acres: 3349

Acres by Treatment Type

Commercial Harvest - 358	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen	79	0	0	0	0	0	**79**
Mixed Upland Deciduous	27	0	0	0	0	0	**27**
Northern Hardwood	0	97	0	0	45	0	**142**
Tamarack	1	0	0	0	0	0	**1**
Upland Mixed Forest	57	0	0	0	0	0	**57**
Upland Spruce/Fir	52	0	0	0	0	0	**52**
Total	**216**	**97**	**0**	**0**	**45**	**0**	**358**

Data updated yesterday after 6:00 PM

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
7	12028007-Cut	45.4	4110 - Sugar Maple Association	High Density Pole	84	Harvest	Crown Thinning	4110 - Sugar Maple Association	Cmpt. Review Proposal

Prescription Specs: Thin to BA 80 releasing crop tree crowns, removing poorly formed trees. Focus on large basswood removal as needed.

Other Comments: more sugar maple saplings in east end of stand.

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
17	12028017-Cut	12.3	4191 - Mixed Upland Deciduous with Conifer	High Density Log	84	Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal

Prescription Specs: South half of stand is heavier to aspen with dying birch. Retention will be all cedar, hemlock and good quality white pine (white pine trees with blown out tops are to be marked for removal). Northeast portion of stand has ~1-2 acres of hardwood that could be thinned; so this may either be ringed out for additional retention or lightly thinned or crop trees marked for leaving.

Other Comments: This is access through private; permission was granted from landowners initially from the east (Pierogostini)

Next Steps: Aspen, mixed deciduous, mixed conifer acceptable regen alternative

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Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
30	12028030-Cut	14.5	4191 - Mixed Upland Deciduous with Conifer	High Density Log	78	Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal

Prescription Specs: Clearcut all stems 2" dbh and greater. May need to consider winter/dry summer harvest as soils appear shallow. Birch is not holding up well. Retain all cedar and pine, and hemlock if found.

Other Comments: Refer to 2 OFS that were located and reported to Wildlife on 4-4-11. Access was initially granted from the east from Pieragostini, but Verso must also be contacted. private landowners want to be notified just prior to sale set up also.

Next Steps: Aspen,red maple, birch, mixed conifer are acceptable regen species. Check WIs as required.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
32	12028032-Cut	5.7	4112 - Maple, Beech, Cherry Association	High Density Pole	88	Harvest	Single Tree Selection	4119 - Mixed Northern Hardwoods	Cmpt. Review Proposal

Prescription Specs: Thin to BA 80, focusing on crown release of crop trees and removing poorly formed, competing trees. White birch is not holding up well, so may need to focus on removal while not eliminating species. Do not mark cedar or pine.

Other Comments: Access from east landowners (Pieragostini) initially granted but they do want further requests/info closer to sale set up period. Must also contact Verso/GMO for permission.

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
40	12028040-Cut	10.3	42340 - Upland Spruce/Fir	High Density Log	71	Harvest	Clearcut with Reserves	42340 - Upland Spruce/Fir	Cmpt. Review Proposal

Prescription Specs: Clear cut all species 2" dbh and greater, except cedar and pine. Retention will be ash swale in northwest corner of sale, along road.

Other Comments:

Next Steps: Aspen with mixed conifer would be acceptable regen alternative as there is 30% aspen in the stand now.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
58	12028058-Cut	9.6	4110 - Sugar Maple Association	High Density Pole	91	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal

Prescription Specs: Thin to BA 90 focusing on crown release of crop trees and removing poorly formed trees. Basswood is thick is places; remove most of the aspen as it is very large. There is a steep hill just north of the first pipeline.

Other Comments: Pipeline will need to be contacted if purchaser plans to bring trucks onto pipeline = consider this during sale write up.

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
60	12028060-Cut	16.8	42320 - Upland Spruce	High Density Log	66	Harvest	Clearcut	42340 - Upland Spruce/Fir	Cmpt. Review Proposal

Prescription Specs: Suggest cutting all stems 2" dbh and greater as balsam is dying and there is a fair amount of conifer on ground. There is some white spruce plantation rows in the southwest portion of this stand, which appears to be stagnant (no FTP found for it). There are a few low spots within the stand. Anticipate aspen/conifer regen.

Other Comments:

Next Steps: Aspen, mixed conifer, mixed deciduous trees would be acceptable regen species. If regen is not sufficient, may consider herbicide, trenching and planting white spruce.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
70	12028070-Cut	14.2	4319 - Mixed Upland Forest	High Density Pole	50	Harvest	Clearcut with Reserves	4319 - Mixed Upland Forest	Cmpt. Review Proposal

Prescription Specs: Cut all stems 2" dbh and greater, retaining all cedar and pine. Access will be along/across pipeline so pipeline company will need to be contacted prior to operating upon to determine their specifications for use.

Other Comments: Aspen is dying out and some balsam/spruce blowdown on ridges. Appears to be a fair white spruce site, particularly on east half. May be a drainage from stand 62 thru this stand but I did not see any running water during inventory. If there is running water, this will need to be protected and allow only 1 crossing to west portion of stand. This stand will also likely need to be winter harvest as the pipeline is wet on both sides; mats will probably be needed on pipeline even for skidding wood closer to road.

Next Steps: check regen per WIs; mixed deciduous (red maple, birch, aspen) and mixed conifer (white spruce, black spruce, balsam fir) are acceptable regen species.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
71	12028071-Cut	11.9	4134 - Aspen, Spruce/Fir	High Density Log	54	Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal

Prescription Specs: Cut all stems 2" dbh and greater. Retain all cedar and pine if present. Retention may be in south west corner along lowland stand 62.

Other Comments: Pipeline company will need to be contacted by logger/us to determine operating on the pipeline specs.

Next Steps: Aspen, mixed deciduous/mixed conifer is acceptable regen alternative.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
78	12028078-Cut	36.9	4319 - Mixed Upland Forest	High Density Pole	50	Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal

Prescription Specs: Cut all stems 2" dbh and greater except pine and cedar. Retention may be small pocket of white spruce plantation that is most evident just south of woods road, just to the east/SE of stand 67.

Other Comments: There are some plantation white spruce rows scattered in this stand,mostly overtopped and the WS is not doing well. I expect removing overstory and trying to thin/manage for WS on site where it exists will shock it and won't be successful.

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
80	12028080-Cut	5.7	4319 - Mixed Upland Forest	High Density Pole	55	Harvest	Clearcut with Reserves	4136 - Aspen, Mixed Conifer	Cmpt. Review Proposal

Prescription Specs: Cut all stems 2" dbh and greater, leaving all cedar and pine. Retention will be cedar and 50' from drainage on far west end of stand.

Other Comments:

Next Steps: Aspen, mixed deciduous, mixed conifer are acceptable regen alternatives.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
82	12028082-Cut	9.3	4134 - Aspen, Spruce/Fir	High Density Log	63	Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal

Prescription Specs: Cut all stems 2" dbh and greater except any cedar or pine. Fir is dominant type on far north edge, north of ridge. Much of southeast of stand is on a narrow ridge and is seeing blowdown.

Other Comments:

Next Steps: check for regen per WIs

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
83	12028083-Cut	1.1	6121 - Tamarack	High Density Pole	81	Harvest	Clearcut with Reserves	6121 - Tamarack	Cmpt. Review Proposal

Prescription Specs: Cut all stems 2" dbh and greater except cedar and pine, if found. Retention will be leaving some dominant tamarack on north edge of stand. Winter or very dry summer cut.

Other Comments: This is a tamarack stand!

Next Steps: Check for regen per WIs

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
88	12028088-Cut	11.5	4134 - Aspen, Spruce/Fir	Medium Density Pole	62	Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal

Prescription Specs: Cut all stems 2"dbh and greater except cedar and pine. Retention will be cedar and sliver along east end of stand.

Other Comments: Much of larger balm of gilead is dead.

Next Steps: check regen per WIs

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
90	12028090-Cut	24.9	42311 - Planted Spruce, Mixed Deciduous	High Density Pole	50	Harvest	Clearcut	42310 - Planted Spruce	Cmpt. Review Proposal

Prescription Specs: Remove all species, herbicide, trench, plant to red pine. No reserves in this stand.

Other Comments:

Next Steps: After harvest, site will need to be herbicided, trenched, and planted to red pine.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
95	12028095-Cut	77.1	4110 - Sugar Maple Association	High Density Pole	84	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal

Prescription Specs: Thin to BA 80 by releasing crowns of crop trees and removing poorly formed trees. Mark lightly through/around small black ash/balm of gilead swale in south central stand. Patches of large aspen in northwest, many are blowing down or breaking up and should be removed. Patches of smaller diameter trees (=lower BA) still need thinning.

Other Comments: This stand is hugely variable; south half particularly lower quality (porcupine damage, tip ups, heavier to basswood) but can use improvement.

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
101	12028101-Cut	26.6	4134 - Aspen, Spruce/Fir	High Density Log	60	Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal

Prescription Specs: Cut all stems 2"dbh and greater except pine and cedar, if found. Retention may be 1 ac of young fir that is filling in an old opening just north of stand 109, or something else if more preferable.

Other Comments: There is a swale of balm of gilead in far north portion of stand that needs to be cut (low BA, trees falling out)

Next Steps: Aspen, mixed hardwood, balsam, spruce & pine are acceptable regen species; check for regen per WIs

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
106	12028106-Cut	19.7	4134 - Aspen, Spruce/Fir	High Density Log	56	Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal

Prescription Specs: Cut all stems 2"dbh and greater; winter cut as site is not great and this will 1)allow stronger root suckering and 2)protect lower spots. 300 foot buffer to Ford River will serve as retention. Do not cut cedar or pine, if found.

Other Comments:

Next Steps: check regen per WIs

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
109	12028109-Cut	4.5	4110 - Sugar Maple Association	High Density Pole	85	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal

Prescription Specs: Thin to BA 80. This will be a very light thin but justified by harvesting adjacent stand.

Other Comments:

Next Steps:

Total Treatment Acreage Proposed: 358.0

Crystal Falls Mgt. Unit

Table 4 -- Treatments Prescribed with a Limiting Factor

Compartment: 028
Year of Entry 2013

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
			#Error						

Prescription Specs:

Other Comment:

Next Steps:

Limiting Factor and No Treatment Reason

Total Treatment Acreage Proposed: **0**

Data updated yesterday after 6:00 PM

Out of YOE -- Treatments
Prescribed with No Limiting Factor

Year of Entry: 2013

Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
12060_OutOfYOE-Cut	6.0				Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal

Prescription Specs: Clearcut 2" dbh and above except cedar, hemlock and pine if present.

Other Comments:

Next Steps:

Total Treatment Acreage Proposed: **6.0**

Data updated yesterday after 6:00 PM

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6121 - Tamarack	High Density Pole	23.4	78		West 1/2 of stand is more variable with BF, WC, smaller diameter BS, smaller DBH trees, and more tag.
4	6120 - Lowland Cedar	High Density Pole	43.0	105		
5	4130 - Aspen	High Density Pole	58.5	54		
7	4110 - Sugar Maple Association	High Density Pole	45.4	84	111-140	More SM saplings to East. Traces of Cedar and Hemlock
8	4110 - Sugar Maple Association	High Density Pole	2.6	83	81-110	
9	4134 - Aspen, Spruce/Fir	High Density Pole	42.9	46		Trees in North 1/2 are smaller DBH (7-8") but there is a lot of variability. F3/F4 inclusion, and a lot of dead, overmature BF. Trace amounts of SM and WB.
10	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	81.5	89		
11	6121 - Tamarack	High Density Pole	12.9	84		
13	4134 - Aspen, Spruce/Fir	High Density Pole	116.9	25		
14	6120 - Lowland Cedar	High Density Pole	22.5	98		Very wet. Maybe an intermittant stream. Lots of ponded water on South side of stand.
15	4130 - Aspen	High Density Pole	13.1	26		Tam, WS, RM, smaller Aspen in South 1/3 of stand.
16	6122 - Black Spruce	High Density Pole	6.4	68		Surprisingly nice BS regen underneath. Little strip cut around also regenerating well to BS/Tam. Good candidate for harvest next YOE.
17	4191 - Mixed Upland Deciduous with Conifer	High Density Log	12.3	84		South 1/2 of stand needs cc. Only about 1-2 acres worth thinning. Make removal and marked SM if needed? Leave Hemlock, WP, Cedar should meet retention needs. Plus, leave SM unless marked?
19	4119 - Mixed Northern Hardwoods	High Density Pole	22.7	84	111-140	South 1/2 of stand has more RM, but good SM regen 15' tall. Focus on overstory removal to recruit SM saplings.
20	429 - Mixed Upland Conifers	High Density Log	17.6	89		Strange stand! Cedar intermixed throughout, but concentrated more to South where it was a little wetter than rest of stand. Couple vernal pools. Could take out all but conifer, but there wouldn't be a lot volume-wise. Consider it if cutting maple stand to North.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
21	6120 - Lowland Cedar	Medium Density Pole	10.3	89		
22	4130 - Aspen	High Density Sapling	65.2	15		Area cut around BS stand is upland and regenerating to Spruce/Fir (F2). Half of Chipmunk Sale 1996.
23	4130 - Aspen	High Density Sapling	15.6	18		Cut 1994. Running Bear sale.
24	6120 - Lowland Cedar	High Density Pole	102.9	89		
25	4130 - Aspen	High Density Pole	88.3	50		Some larger trees scattered thoughout, mostly in NE. Some WS plantation pockets. 1 or 2 pockets of low areas. Drainage in East running N/S.
29	4130 - Aspen	High Density Pole	60.5	36		
30	4191 - Mixed Upland Deciduous with Conifer	High Density Log	14.5	78		Birch not holding up well. Soils appear shallow. 2 stick nest found. They do not appear to be maintained. 2' dia.
31	4130 - Aspen	High Density Sapling	67.4	4		Pipeline Birch Sale. Cut 2006. Supercanopy WP throughout.
32	4112 - Maple, Beech, Cherry Association	High Density Pole	5.7	88	111-140	Stick nest found within stand
34	4130 - Aspen	High Density Sapling	46.7	4		426 Birch Run sale 2006. Some Black Ash, and Cedar in supercanopy.
36	4119 - Mixed Northern Hardwoods	High Density Pole	16.5	89	111-140	
37	6120 - Lowland Cedar	High Density Pole	49.8	88		2 acre inclusion of Fir in far East where most of BF is blown down. Couple Blk Ash swales/drainages in the cedar to East.
38	4130 - Aspen	High Density Pole	87.7	25		Cut 1986. Far Eastern finger (North of Private) is uncut.
39	4130 - Aspen	High Density Pole	11.6	25		Cut in 1986
40	42340 - Upland Spruce/Fir	High Density Log	10.3	71		NW corner of stand is Ash swale.
42	6120 - Lowland Cedar	High Density Pole	112.8	93		Pockets of young White Birch doing well in SW corner, but still heavy to Cedar.
44	4319 - Mixed Upland Forest	Medium Density Pole	48.7	30		

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
45	4130 - Aspen	High Density Sapling	36.4	25		Cut 1986
48	6120 - Lowland Cedar	High Density Pole	19.1	89		
49	6122 - Black Spruce	Medium Density Pole	3.1	89		Not very thick overstory
50	4130 - Aspen	High Density Pole	28.4	28		1983 cut
51	4119 - Mixed Northern Hardwoods	High Density Pole	21.7	88	111-140	Very steep. Quality is somewhat poor.
53	6120 - Lowland Cedar	High Density Pole	7.1	88		
54	4130 - Aspen	High Density Pole	26.3	27		There are some larger, older Aspen along road running E-W.
55	4130 - Aspen	High Density Sapling	21.1	15		cut 1995 Schultz Rd sale
56	4130 - Aspen	High Density Sapling	17.2	15		1995 cut. Shultz Rd sale.
57	4134 - Aspen, Spruce/Fir	High Density Sapling	37.1	17		Cut 1994. North portion of this stand was acquired in 2006. Residual WS along road. It is lumped together for management purposes.
58	4110 - Sugar Maple Association	High Density Pole	9.6	91	111-140	
60	42320 - Upland Spruce	High Density Log	16.8	66		BF dying. Fair amount of conifer on ground. Low spots throughout. E-W swale in middle. South has some plantation WS. BS on Southside of swale.
61	4134 - Aspen, Spruce/Fir	High Density Pole	19.2	34		
67	4110 - Sugar Maple Association	High Density Pole	76.9	87		Schultz Rd Hdwd sale. Thinned 2005-2006
69	4119 - Mixed Northern Hardwoods	Medium Density Pole	6.7	82		Moose tracks!! Maple quality terrible. Stand has adequate understory to replace overstory which is very sparse. May have been old WLD winter cut for deer?
70	4319 - Mixed Upland Forest	High Density Pole	14.2	50		Aspen dying out. Some fir blowdown on ridges. Looks like fair WS site. Access along pipeline? Winter cut as it is wet on both sides of pipeline.
71	4134 - Aspen, Spruce/Fir	High Density Log	11.9	54		

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
72	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	18.5	94		smaller trees. Wet.
75	4130 - Aspen	High Density Pole	79.7	24		Andrini sale 1987
77	6122 - Black Spruce	High Density Pole	16.7	74		
78	4319 - Mixed Upland Forest	High Density Pole	36.9	50		There are some plantation rows, mostly overtopped WS not doing well. I think removing overstory and trying to thin or manage fgor WS on site will shock it, and won't be successful. Most evident rows are South of woods road, in Southern portion of stand.
79	6120 - Lowland Cedar	High Density Log	289.9	101		WB on rocky knobs and ridges to South.
80	4319 - Mixed Upland Forest	High Density Pole	5.7	55		Drainage on far West end of stand. Leave Cedar and all trees 50 ft from drainage.
81	4130 - Aspen	High Density Sapling	23.4	25		
82	4134 - Aspen, Spruce/Fir	High Density Log	9.3	63		At far North edge, below hill/ridge, heavier to fir type. Lots of blowdown to North.
83	6121 - Tamarack	High Density Pole	1.1	81		
84	42310 - Planted Spruce	High Density Pole	3.0	56	81-110	Few lower limbs
85	4130 - Aspen	High Density Sapling	30.9	6		Wildfire Aspen sale. Cut 2004
86	6122 - Black Spruce	High Density Pole	27.0	68		Wetter along edge of stand. Hummocks within stand. Larger BS and Tam also on stand edge.
87	4130 - Aspen	High Density Sapling	4.5	24		North side of stand is regenerating slowly. Tam/BF coming in. Aspen is finally coming in (1-2" DBH only). Bearck Sale 1986.
88	4134 - Aspen, Spruce/Fir	Medium Density Pole	11.5	62		Much of larger BAM is dead. Center of stand is upland with a few residual older trees left, but may consider combining with Aspen/Fir stand adjacent to West.
89	4319 - Mixed Upland Forest	High Density Sapling	4.3	6		Part of Wildfire Aspen sale. Cut 2004
90	42311 - Planted Spruce, Mixed Deciduous	High Density Pole	24.9	50	141-170	

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
91	4134 - Aspen, Spruce/Fir	High Density Pole	30.3	49		Hold till next entry
94	4130 - Aspen	High Density Pole	10.4	25		
95	4110 - Sugar Maple Association	High Density Pole	77.1	84	111-140	Small BlkAsh/BAM swale in South central. This stand hugely variable. south 1/2 particularly lower quality. Porky damage, tip ups, more basswood, but can use improvement. Patches of large Aspen in NW. Many are blown down or breaking up. Patches of smaller diameter trees (lower BA) need thinning.
96	4139 - Aspen, Mixed Deciduous	High Density Pole	6.0	38		
97	4134 - Aspen, Spruce/Fir	Medium Density Pole	38.0	43		Interesting stand. Larger, older trees and conifer type more along swamp edge. Wide range of DBH, younger Aspen in pockets and along South edge (unmerchantable 1 stick). Surprising amount of elm. Old openings are regenerating to Aspen.
98	4130 - Aspen	Medium Density	5.8	17		
100	6124 - Lowland Spruce-Fir	High Density Pole	6.0	56		
101	4134 - Aspen, Spruce/Fir	High Density Log	26.6	60		Swale of lower types (P) in far North. Trees are faloling out. Buffer along wet type.
102	6120 - Lowland Cedar	High Density Pole	69.4	98		Old stumps and hummocks.
103	6120 - Lowland Cedar	High Density Pole	28.1	98		
105	4130 - Aspen	High Density Sapling	38.5	5		Cut 2005. County Line Sale. Very small inclusion 6" Aspen 1986. Scattered overstory BF, WS, WP.
106	4134 - Aspen, Spruce/Fir	High Density Log	29.6	56		There are 2 Tag swales in SW corner of stand running N/S against PVT on south. Retention is 150-200 ft buffer along Ford River. Suggest winter cut as site is not great and this will allow stronger root suckering and protect lower spots.
107	4130 - Aspen	High Density Pole	13.6	40		
108	4319 - Mixed Upland Forest	High Density Pole	13.6	50		Aspen to North, Softwood to South. Small pocket of planted Spruce to South.
109	4110 - Sugar Maple Association	High Density Pole	4.5	85	81-110	Most Aspen dead.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
110	6120 - Lowland Cedar	High Density Log	8.6	89		
112	4134 - Aspen, Spruce/Fir	High Density Sapling	24.0	14		Cut 1997. Opening on South has Cherry 5-10 ft tall and BF, WS 5-20 ft tall.

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
2	310 - Herbaceous Openland	4.2	N\A	Unspecified	
3	310 - Herbaceous Openland	1.5	N\A	Unspecified	
6	622 - Lowland Shrub	14.0	N\A	Unspecified	
12	622 - Lowland Shrub	20.5	N\A	Unspecified	
18	310 - Herbaceous Openland	5.0	N\A	Unspecified	
26	310 - Herbaceous Openland	14.3	N\A	Unspecified	
27	310 - Herbaceous Openland	19.0	N\A	Unspecified	
28	310 - Herbaceous Openland	7.8	N\A	Unspecified	
33	6225 - Bog	3.4	N\A	Unspecified	
35	6225 - Bog	292.0	N\A	Unspecified	
41	622 - Lowland Shrub	20.9	N\A	Unspecified	
43	622 - Lowland Shrub	111.6	N\A	Unspecified	
46	622 - Lowland Shrub	3.9	N\A	Unspecified	
47	622 - Lowland Shrub	5.6	N\A	Unspecified	
52	710 - Sand, Soil	3.2	N\A	Unspecified	
59	622 - Lowland Shrub	1.1	N\A	Unspecified	
62	622 - Lowland Shrub	11.0	N\A	Unspecified	
63	622 - Lowland Shrub	1.3	N\A	Unspecified	

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
64	310 - Herbaceous Openland	2.6	N\A	Unspecified	
65	3302 - Low Density Conifer Trees	3.4	No	Unspecified	
66	622 - Lowland Shrub	1.3	N\A	Unspecified	
68	310 - Herbaceous Openland	6.0	N\A	Unspecified	
73	310 - Herbaceous Openland	8.1	N\A	Unspecified	
74	622 - Lowland Shrub	14.6	N\A	Unspecified	
76	622 - Lowland Shrub	11.3	N\A	Unspecified	
92	310 - Herbaceous Openland	1.6	N\A	Unspecified	
93	310 - Herbaceous Openland	5.1	N\A	Unspecified	
99	6229 - Mixed lowland shrub	5.8	N\A	Unspecified	
104	622 - Lowland Shrub	20.9	N\A	Unspecified	
111	310 - Herbaceous Openland	1.9	N\A	Unspecified	

7 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

Stand	SCA Type	SCA Name	Acres	Comments

8 – DEDICATED CONSERVATION AREA DETAILS

* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

ERA = Ecological Reference Area
HCVA = High Conservation Value Area
SCA = Special Conservation Area

Conservation Area	Type	Description
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	Habitat Area	An area that provide some specific need for the life cycle of wildlife species, including State Wildlife Areas and Waterfowl Production Areas, deer wintering complexes in lowland conifer communities, grassland openings and savannas. Habitat areas are distinct from critical habitat designated for recovery of endangered or threatened species (such as Kirtland's warbler or piping plover areas) in that they are more general in nature, are not primarily associated with threatened or endangered species, and are not covered by species recovery plans that are developed in cooperation with Federal agencies.